

**UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF WISCONSIN**

**NATIONWIDE AGRIBUSINESS
INSURANCE COMPANY and
S & R EGG FARM, INC.,**

Plaintiffs,

v.

Case No. 15-CV-1362

**MUNTERS CORPORATION and
ZURICH AMERICAN
INSURANCE COMPANY**

Defendants.

**REPORT AND RECOMMENDATION ON DEFENDANTS'
MOTION FOR SUMMARY JUDGMENT**

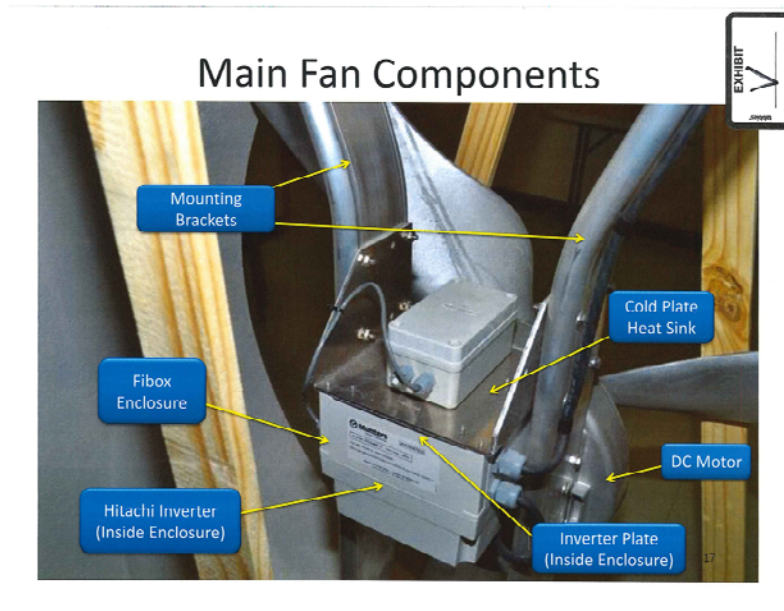
This lawsuit arises out of a fire that occurred in a barn on an egg farm. Nationwide Agribusiness Insurance Company and S&R Egg Farm (collectively plaintiffs) bring this products liability action against Munters Corporation and Zurich American Insurance Company (collectively defendants) alleging that an agricultural fan that they purchased from defendants contained a defect and was the cause of the fire resulting in substantial damage. Plaintiffs allege strict liability, negligence, failure to warn, and breach of warranty. Defendants move for summary judgment under Fed. R. Civ. 56(a). For the reasons explained below, I recommend defendants' motion be denied

BACKGROUND

S & R Egg Farm, Inc., is a Wisconsin corporation located in Whitewater, Wisconsin. (Defendants' Statement of Undisputed Facts ("DSOF") ¶ 1, Docket # 61 and

Plaintiff's Response to Defendants' Statement of Undisputed Fact ("Pl.'s Resp. to DSOF") ¶ 1, Docket # 82.) S & R Egg's operation consists of several egg laying bars in or near Whitewater. (DSOF ¶ 8 and Pl.'s Resp. to DSOF ¶ 8.)

Munters manufactured and sold agricultural fans to S & R Egg including the Model VX51 ("Prototype Fan" or "DC Fans"), a direct drive fan. (DSOF ¶ 9 and Pl.'s Resp. to DSOF ¶ 9.) Hitachi Industrial Equipment Systems Co., Ltd. ("HIES") designed and manufactured the Hitachi WJ200 inverter (Hitachi Inverter). (Plaintiff's Statement of Fact (PSOF) ¶ 6, Docket # 83 and Defendants' Response to Plaintiff's Statement of Fact (Defs.' Resp. to PSOF) ¶ 6, Docket # 94.) The Hitachi Inverter was used on the Prototype Fans that were sold to S & R Egg. (DSOF ¶ 10 and Pl.'s Resp. to DSOF ¶ 10.) The Munters' Prototype Fans convert AC current to DC current as DC current provides costs and energy savings. (DSOF ¶ 11 and Pl.'s Resp. to DSOF ¶ 11.) An illustration of the fan components is below:



(Affidavit of Scott Drawe ("Drawe Aff") ¶ 15, Exh. U, Docket # 57-17.)

In December 2011, Munters and Hitachi began discussing the use of Hitachi Inverters in Munters' Prototype Fans. (PSOF ¶ 9 and Defs.' Resp. to PSOF ¶ 9.) Typically, Hitachi used "finned inverters" that had an aluminum plate on its base with a small internal fan. (PSOF ¶ 3 and Defs.' Resp. to PSOF ¶ 3.) However, the Hitachi Inverter used with Munters' Prototype Fans was a "finless inverter" in order for it to be fully enclosed and protected from the outside environment. (PSOF ¶ 10 and Defs.' Resp. to PSOF ¶ 10.) In March 2012, Munters displayed their Prototype Fans at the Midwest Poultry Show in Minnesota. (PSOF ¶ 12 and Defs.' Resp. to PSOF ¶ 12.) Munters marketed the fans as "new." (*Id.*) On May 3, 2012, S & R Egg ordered twenty-six of Munters' Prototype Fans for use in one of their barns. (PSOF ¶ 19 and Defs.' Resp. to PSOF ¶ 19.) The first Prototype Fans were shipped on June 7, 2012 and installed in "Barn 3" in October of 2012. (PSOF ¶ 35 and Defs.' Resp. to PSOF ¶ 35.) On January 31, 2014, a fire at Barn 3 occurred at S & R Egg Farm. (PSOF ¶ 36 and Defs.' Resp. to PSOF ¶ 36.)

After the fire, plaintiffs hired investigator Lonn Abeltins. Abeltins opined that the fire originated in the west half of the barn. (PSOF ¶ 57 and Defs'. Resp. to PSOF ¶ 57.) Plaintiffs also hired electrical engineer Todd Hartzler and mechanical engineer Steven Hamers to investigate the location of the fire. (PSOF ¶ 54 and Defs.' Resp. to PSOF ¶ 54.) Following the scene inspection, plaintiffs hired electrical engineer Steven Hamilton and mechanical engineer Paul Gramann.

Because much of the dispute between the parties centers on the opinions of Hartzler, Hamilton and Gramman, their opinions are summarized below.

Todd Hartzler

Todd Hartzler is an electrical engineer. Hartzler eliminated alternative sources of fire such as the LED lights finding insufficient amperage of the lights to cause a fire. (PSOF ¶ 59 and Defs.' Resp. to PSOF ¶ 59.) Ventilation fans along the north wall of the barn were activated as needed by the climate control system which pull air from the south side of the barn. (PSOF ¶ 60 and Defs.' Resp. to PSOF ¶ 60.) A manure drying system was located along the north side of the barn that included eight of Munters' Prototype Fans over conveyor belts of manure. (PSOF ¶ 61 and Defs.' Resp. to PSOF ¶ 61.) Hartzler examined the electrical panel of Barn 3 and identified that the circuit breakers, manure dryer tunnel light circuit, two DC fans, one emergency AC fan, and all eight of the manure dryer tunnel Prototype Fans had tripped circuits. (PSOF ¶ 65 and Defs.' Resp. to ¶ 65.) Hartzler found that the only energized equipment along the north wall dry tunnel were Munters' Prototype Fans. (PSOF ¶ 67 and Defs. Resp. ¶ 67.)

After the scene inspection, Hartzler examined artifacts in a lab including x-ray imaging of many of the burned Hitachi Inverters. (PSOF ¶ 68 and Defs.' Resp. to ¶ 68.) Hartzler found that one of the inverters showed electrical melting unlikely to have been caused by exposure to fire. (*Id.*)

Steven Hamilton

Steven Hamilton is an electrical engineer hired by plaintiffs. Along with Dr. Paul Gramann, Hamilton tested two new DC fans (Exemplar Fans) that had an aluminum motor housing unlike the Prototype Fans which had motor housing made of ABS plastic. (PSOF ¶ 70 and Defs.' Resp. to ¶ 70.) Hamilton found that the Exemplar Fans ran at a cooler temperature than the Prototype Fans that contained the plastic motor enclosure. (PSOF ¶ 72

and Defs.' Resp. to ¶ 72.) While the Hitachi Inverter did not require the same clearances for the finless inverter as it did for the finned inverter, Hamilton opined that there were still minimum clearance requirements the finless converter had to meet. (PSOF ¶ 73 and Defs.' Resp. to ¶ 73.) When Hamilton tested the Prototype Fans in a laboratory environment where the ambient temperature was 20°C (68°F), the temperatures within the inverter's outer enclosure measured as high as 46°C (115°F). (PSOF ¶ 75 and Defs.' Resp. to ¶ 75.) Hamilton also measured the vibrations of the Prototype Fans. (PSOF ¶ 77 and Defs.' Resp. to ¶ 77.) The vibrations measured at 1.04g along the fan's x-axis, 1.88g along the fan's y-axis, and 1.54g along the fan's z-axis. (*Id.*) However, the vibration limit imposed by Hitachi was 0.6g. (*Id.*)

Further, Hamilton opined that using a standard Hitachi inverter in a suitably sized metal enclosure or mounting the inverter in a clean environment would have eliminated Munters' design flaws. (PSOF ¶ 84 and Defs.' Resp. to PSOF ¶ 84.) The fan motor on the Prototype Fans was housed in ABS plastic. (PSOF ¶ 42 and Defs.' Resp. to PSOF ¶ 42.) Munters later began manufacturing their fans using aluminum fan motor housing. (*Id.*) Munters did not conduct any flammability testing on the ABS plastic, but relied on the characteristics set forth by the product specifications of the ABS plastic's manufacturer. (PSOF ¶ 43 and Defs.' Resp. to PSOF ¶ 43.) While defendants dispute the admissibility of this finding, Hamilton opines that the fire at issue in this case is similar to a fire that occurred at Green Valley farm in Portland, Indiana. (PSOF ¶ 96 and Defs.' Resp. to PSOF ¶ 96.) According to Hamilton, the inverter enclosure used on the Munters' DC fan was similar in size and shape to the Prototype Fans used during the fire at Barn 3. (PSOF ¶ 52 and Defs.' Resp. to PSOF ¶ 52.) Hamilton opines that an electrical failure in the inverter

started the fire in Green Valley, resulting in the fire spreading from the inverter to the plastic enclosure and to the farm. (PSOF ¶ 52.)

Paul Gramann

Paul Gramann is a mechanical engineer hired by plaintiffs. Gramann opines that based on Hamilton's ambient temperature testing of 100°F, the inverter enclosure deformed three millimeters which created an opening in the enclosure that would allow poultry dust into the enclosure and come into contact with the inverter. (PSOF ¶ 49.) Lastly, Gramann opines that it is likely the plastic enclosure used on the Prototype Fans would have allowed flames to develop. (PSOF ¶ 53.)

SUMMARY JUDGMENT STANDARD

Summary judgment is required where there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(a); *see also Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986); *Celotex Corp. v. Catrett*, 477 U.S. 317, 324 (1986). "Material facts" are those under the applicable substantive law that "might affect the outcome of the suit." *See Anderson*, 477 U.S. at 248. The mere existence of some factual dispute does not defeat a summary judgment motion. A dispute over a "material fact" is "genuine" if "the evidence is such that a reasonable jury could return a verdict for the nonmoving party." *Id.*

In evaluating a motion for summary judgment, I must draw all inferences in a light most favorable to the non-moving party. *Matsushita Electric Industrial Co., Ltd. v. Zenith Radio Corp.*, 475 U.S. 574, 587 (1986). However, when the non-moving party is the party with the ultimate burden of proof at trial, that party retains its burden of producing evidence which would support a reasonable jury verdict. *Celotex Corp.*, 477 U.S. at 324. Evidence relied upon

must be of a type that would be admissible at trial. *See Gunville v. Walker*, 583 F.3d 979, 985 (7th Cir. 2009). To survive summary judgment, a party cannot rely on its pleadings and “must set forth specific facts showing that there is a genuine issue for trial.” *Anderson*, 477 U.S. at 248. “In short, ‘summary judgment is appropriate if, on the record as a whole, a rational trier of fact could not find for the non-moving party.’” *Durkin v. Equifax Check Services, Inc.*, 406 F.3d 410, 414 (7th Cir. 2005) (citing *Turner v. J.V.D.B. & Assoc., Inc.*, 330 F.3d 991, 994 (7th Cir. 2003)).

ANALYSIS

Defendants argue that they are entitled to summary judgment because plaintiffs have not presented evidence that establishes a causal connection between the alleged electrical event in the Hitachi Converter and the fire at S & R’s Barn 3. Specifically, defendants argue that none of the five experts hired by plaintiffs “will testify regarding the entire sequence of events that plaintiffs allege led to this fire.” Further, defendants argue that plaintiffs fail to connect the electrical event to the Fibox enclosure being ignited. Defendants assert that each expert fails to carry plaintiffs’ burden.

As to plaintiffs’ expert, Hartzler, defendants argue that he fails to make a causal connection from the alleged electrical activity to the fire. Defendants state that while Hartzler testified that an x-ray of the Hitachi Inverter shows signs of electrical failure, he provides no expert opinion on whether the electrical activity actually caused the fire. (Defs.’ Br. at 15.) Defendants point to Hartzler’s deposition:

Q. Have you done any analysis or developed any opinions to a reasonable degree of engineering certainty as to whether the electrical event that you found could have been . . . was transmitted to and caused a fire in the Fibox enclosure for the Hitachi Inverter.

A. No, I have not done that analysis.

(Drawe Aff. ¶ 11, Exh. O, Deposition of Todd Hartzler (“Hartzler Dep.”) at 5, Docket # 57-10.)

Plaintiffs respond that Hartzler testified about his analysis of where the fire spread. (Pls.’ Resp. at 16.) Specifically, plaintiffs point to Hartzler’s assertion that by viewing the circuit breakers that were tripped versus the ones that were not, “we can gain knowledge as to how fire could . . . have moved through the barn.” (Hartzler Dep. at 7.) By using this method, Hartzler determined that the fire began in the northwest area of the manure dry room, where the Prototype Fans were located. (*Id.* at 216, Docket # 87-51.) Further, Hartzler eliminated other sources of the fire including the LED lights. (*Id.* at 97-98, Docket # 87-51; Pls.’ Resp. at 17.) Lastly, Hartzler testified that the x-ray of the Hitachi Inverter showed signs of electrical melting that unlikely resulted from exposure to the fire. (PSOF ¶ 68 and Defs.’ Resp. to ¶ 68.) Defendants dispute this interpretation of the Hitachi Inverter x-ray. (Defs.’ Br. at 15 n.7.)

Next, as to plaintiffs’ expert, Steven Hamilton, defendants argue that Hamilton’s tests “did not replicate the temperature testing set forth in the Hitachi Delivery Specification.” (*Id.*) Further, defendants’ point to Hamilton’s testimony:

Q: Do you have any information or evidence that indicate that they [Munters] failed to comply with the temperature requirements set forth by Hitachi?

A: I don’t have any data that it’s out of compliance with the Hitachi specifications.

(Drawe Aff. ¶ 12, Exh. P, Deposition of Steven Hamilton (“Hamilton Dep.”) at 18-19, Docket # 57-11.) Defendants argue that because Hamilton “attempted to determine the hottest location in the Fibox enclosure” and tested the fans at an ambient temperature of

103°F despite the highest temperature recorded over the fifteen months the Munters Fans were in operation was 94°F, his analysis is flawed. (Defs.' Br. at 18.)

Further, defendants argue that Hamilton's opinion that the capacitors failed because of exposure to excessive heat fails as he did not measure the temperature the capacitors were exposed to. (*Id.*) Similarly, defendants argue that "Hamilton's testimony regarding the effect of alleged vibration on the capacitors is likewise lacking in foundation" because he is not aware of any Hitachi specifications that state that vibration creates a fire hazard or risk of short circuit failure. (*Id.*) With respect to the alleged electrical event inside the Fibox enclosure, defendants highlight that Hamilton had no opinion regarding: whether the short circuit precipitated the cause of the fire; how the fire began from short circuit and reached the Fibox enclosure; whether the electrical event could ignite a flame; or the flammability characteristics of the Fibox enclosure. (*Id.* at 18-19.)

Plaintiffs respond that Hamilton analyzed the Prototype Fan "from a design perspective" and identified "numerous design defects and alternative designs that could have prevented the fire at issue." (Pls.' Resp. at 19.) Rather than simply relying on Hitachi Delivery Specifications, plaintiffs argue that Hamilton relied on his own "independent judgment in determining how to ensure the inverter was not running at elevated and dangerous temperatures." (*Id.* at 20.) Plaintiffs assert that replicating the exact weather conditions of the barn was not the purpose because "Hamilton's testing was designed and intended to . . . examine whether the inverter as enclosed in the Munters fan will run hotter than Hitachi permitted under various conditions." (*Id.*) Plaintiffs argue that "testing demonstrated in a lab environment with perfect conditions, the inverter reached temperatures in excess of Hitachi recommendations inside the inverter enclosure." (*Id.*)

Further, plaintiffs point to Hamilton’s use of scientific literature to opine that overheating and vibration can cause electrical component deterioration. (*Id.* at 22.)

Finally, as to Gramann, defendants argue that Hamilton “attempts to pass the proverbial ball . . . to Paul Gramann, a plastics expert.” (Defs.’ Br. at 20.) Again, Gramann opined that based on Hamilton’s temperature testing, the inverter enclosure was damaged and created an opening for dust to come into contact with the inverter. (PSOF ¶ 65.) Defendants argue that Gramann did not provide an opinion on the electrical events in the Hitachi Inverter and how it could have ignited the Fibox enclosure. (Defs.’ Br. at 20.) Though Gramann stated that the Fibox enclosure would burn when exposed to continuous flame, defendants assert that he did not state whether the enclosure actually was ever exposed to continuous flame. (*Id.*)

Plaintiffs respond that Gramann will testify that ABS plastic—the material the motor enclosure of the Prototype Fans were made of—is “extremely flammable.” (Pls.’ Resp. at 26.) Additionally, plaintiffs assert that Gramann will testify that the Fibox enclosure will burn when subjected to continuous flame. (*Id.* at 27.) Further, Gramann testified that “if the enclosure got to temperatures identified by [Hamilton], the box would expand and open up and allow elements to get inside.” Plaintiffs argue that experts building upon the analysis of other experts is an acceptable methodology.

Both parties cite to *Auto-Owners Ins. Co. v. Uniden America Corp.*, 503 F. Supp. 2d 1087 (E.D. Wis. 2007) and *Allstate Ins. Co. v. Electrolux Home Products.*, No. 03-C-1249, 2005 WL 6746594 (E.D. Wis. Oct 31, 2005). In *Auto-Owners*, property owners brought suit against a phone manufacturer alleging that a defect in the phone caused a fire. Plaintiff’s expert opined that (1) the phone was defective and dangerous and (2) the fire was caused by an

internal failure in the phone although he could not determine the exact failure mechanism. *Id.* at 1092. In that case, defendants sought to exclude expert testimony arguing that it failed to meet the standard for expert testimony and was based on unscientific speculation. *Id.* at 1092. The court found that the expert used sufficiently sound scientific methodology to reach his conclusions. *Id.* This methodology included the expert using a process of elimination to narrow the point of origin for the fire. *Id.* at 1093.

In *Allstate*, the plaintiffs sought to recover from defendant, Electrolux, for destruction of a home that resulted from a fire. Plaintiff's expert (Hansen) opined that, based on his inspection, the fire was caused by a defect in the home's refrigerator. Electrolux moved to strike plaintiff's expert arguing that his conclusions were speculative. The court denied defendant's motion to strike holding that the expert's analysis was not unreliable although the expert relied, in part, on process of elimination to determine the origin of the fire. In response to defendant's argument that although he had a general theory of what might have happened, Hansen failed to identify why the fire started the court stated:

But such testimony is not usually required; indeed, to require a sort of Grand Unified Theory of causation would exclude the testimony of many, or most, expert witnesses. We are dealing not with scientific certainties but with theories to explain event ex post facto- otherwise trials would not be necessary.

Id. at 4, Docket # 56

In this case, while I agree with defendants that there is no single expert that "connects all the dots," because no "Grand Unified Theory of causation" is required, I find that plaintiffs have put forth sufficient evidence to defeat defendants' motion for summary judgment. Again, defendants' main contention is that plaintiffs' experts have failed to establish a causal connection between the alleged electrical activity in the Hitachi

Inverter and the Fibox enclosure igniting. However, in support of their causation theory, plaintiffs have put forth several experts that have investigated the scene of the fire, conducted independent laboratory testing, examined electrical components from the fire's remains, and eliminated other potential sources of the fire.

First, fire investigation expert, Lonn Abeltins, opined that the fire originated in the west half of the barn. (PSOF ¶ 57 and Defs.' Resp. ¶ 57.) This was based on his investigation of Barn 3 on February 5, 2014, February 9-13, and February 16-20. (PSOF ¶ 54 and Defs.' Resp. ¶ 54.)

Additionally, electrical engineer Todd Hartzler opined that the fire began in the west half of the building along the north wall dry tunnel. (PSOF ¶ 67 and Defs.' Resp. ¶ 67.) Hartzler also examined the electrical panel and identified that the circuits related to equipment along the north side of the barn were tripped. (PSOF ¶ 65 and Defs.' Resp. ¶ 65.) Based on his inspection of artifacts remaining from the fire, Hartzler opined that at least one of the Hitachi Inverters of the Prototype Fans showed signs of electrical melting that was unlikely caused by exposure to the fire. (PSOF ¶ 68.) While defendants dispute Hartzler's interpretation of the inverter x-ray, defendants do not seem to challenge Hartzler's methodology in reaching his conclusion. Defendants argue that Hartzler has not provided whether the electrical activity caused the fire or whether the Hitachi Inverter was defective. (Defs.' Br. at 15.) However, Hartzler testified that the electrical activity was either: (1) a result of it running "too hot" or (2) a short circuit caus[ing] an overload of the output, that will draw excessive electrical current through that device, and that would give this type of melting. (Affidavit of Teirney S. Christenson ("Christenson Aff.") ¶ 53, Exh. YY, Deposition of Todd Hartzler at 12, Docket # 87-51.) Further, in his expert report, dated July

25, 2017, Hartzler specifically states that “it is my opinion that the fire was likely caused by a Munters [Prototype Fan] that was running at the time of the fire. (Christen Aff. ¶ 32, Exh. DD, Todd Hartzler Expert Report, Docket # 87-30.)

Building on Hartzler’s analysis, Steve Hamilton opined that there were design defects that contributed to the likelihood of a fire. (Pls.’ Resp. at 19.) Hamilton conducted temperature tests of the Hitachi Inverter in a laboratory setting and determined that the inverter was operating at a higher temperature than Hitachi’s specifications. (*Id.* at 21; Christenson Aff. ¶ 4, Exh. B, Deposition of Steven Hamilton at 11, Docket # 87-2.) Defendants argue that Hamilton’s testing should not be included because he did not replicate the exact temperatures of the S & R Egg Farm. (Defs.’ Br. at 16.) I disagree. While Hamilton’s testing at different temperatures may subject him to a difficult cross-examination, the exact replication of the barn’s temperature setting is not required in order for an expert to assist the trier of fact to understand the evidence. *See Allstate*, 2005 WL 6746594, *2 (E.D. Wis. Oct. 31, 2005). Further, Hamilton also testified that exposure to excessive vibration could cause the capacitors in the Hitachi Inverter to short circuit. (Hamilton Dep. at 12.) This is important when taking into account the concerns that Hitachi had with the Munters sending fans “into the field” despite a risk of vibration that exceeded Hitachi’s specifications. (Hartzler Expert Report at 18, Docket # 87-30.)

Finally, plastics expert Gramman establishes the causal connection between the alleged short circuit and the fire. Gramann opined that the fan motor was housed in ABS plastic, which, according to plaintiffs, is an “extremely flammable material.” (PSOF ¶ 43.) Gramann stated that the fan motor was “able to quickly spread a flame and produce flaming drips.” (PSOF ¶ 44.) Taking into account Hartzler’s and Hamilton’s testimony that

overheating and excessive vibration could expose the Hitachi Inverter to the potential of a fire, Gramann's opinion about the flammability of the Fibox enclosure could assist the jury in (1) finding that there was a defect in the Prototype Fans and (2) determining whether there is a causal connection between the defect and the fire.

On this record, plaintiffs have presented sufficient evidence for the issue to be presented to a jury. Stated differently, defendants have not made a case for granting them summary judgment. To borrow from *Daubert*, defendants have made a case for "vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof." *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 596 (1993). Accordingly, I recommend that defendants' motion for summary judgment be denied.

NOW, THEREFORE, IT IS RECOMMENDED that the defendants' motion to for summary judgment (Docket # 55) be **DENIED**.

Your attention is directed to General L.R. 72(c), 28 U.S.C. § 636(b)(1)(B) and Federal Rules of Criminal Procedure 59(b), or Federal Rules of Civil Procedure 72(b) if applicable, whereby written objections to any recommendation or order herein, or part thereof, may be filed within fourteen days of the date of service of this recommendation or order. Objections are to be filed in accordance with the Eastern District of Wisconsin's electronic case filing procedures. Courtesy paper copies of any objections shall be sent directly to the chambers of the district judge assigned to the case. Failure to file a timely objection with the district court shall result in a waiver of a party's right to appeal. If no response or reply will be filed, please notify the Court in writing.

Dated at Milwaukee, Wisconsin this 8th day of August, 2018.

BY THE COURT

s/Nancy Joseph
NANCY JOSEPH
United States Magistrate Judge